

Detailed Action

1. This Office Action is in response to the Applicants' communication filed on 04/11/2007. In virtue of this communication, claims 1-2 are currently pending in this Office Action.

Drawings

2. The drawings submitted on 07/06/2006. These drawings are reviewed and accepted by the examiner.

Information Disclosure Statement

3. The information disclosure statement (IDS) is submitted on 07/06/2006, the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Priority

4. Acknowledgment is made of applicant's claim for PCT priority under 35 U.S.C. 371.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Guirauton** et al. (US20020072328A1), herein, **Guirauton**, applicant submitted in IDS, in view of **Hild**, et al. (US20050181809A1), herein, **Hild**, and further in view of, **Davenport** (US20020082044A1), applicant submitted in IDS.

Claim 1

Guirauton discloses method of operation of a control system controlling a radio network for cellular/mobile communications onboard a vessel enabling said vessel to move freely without interfering with other radio transmissions in the same area (fig.1, pg. 1, par. [0008, 0012]; pg. 2, par. [0030, 0031], a mobile network infrastructure is on board an oceangoing ship; to avoid interference if a fixed infrastructure mobile radio network is using the frequency bands that are also being used by the network on board ship); characterised by that:

the control system uses data from a database containing information regarding frequency availability in regulated and unregulated areas (fig. 1, pg. 2, par. [0030-0032], the equipment scans the various frequencies that can be used for mobile radio calls to detect the presence of another mobile radio network in the vicinity; a GSM land mobile radio network covering a particular continental area has access to a band of frequencies

that is allocated to the operator to enable it to service mobile terminals that in that area and other frequency bands are allocated to the operators who also have access to fixed infrastructure GSM mobile radio networks that cover the particular area referred to above at least partly; therefore, it teaches that frequency availability in regulated area, i.e., the fixed infrastructure GSM mobile networks that cover the particular area referred to above at least partly, and unregulated area, i.e., a GSM land mobile radio network covering a particular continental area);

where the control system further uses information from a radio sensor, regarding the radio environment in order to determine whether frequencies listed as available in the database are unavailable due to the other radio transmission in the area (fig. 1, pg. 2-3, par. [0030-0045]; the equipment scans the various frequencies that can be used for mobile radio calls to detect the presence of another mobile radio network in the vicinity; the operating subsystem 14 of the network 1 prohibits the use of frequencies that can be used for communicating with mobile terminals and which have already been allocated to a base station that is external to the network 1); and

Guirauton does not disclose the control system uses from a database;

combined with data from a positioning system in order to determine which radio frequencies are available to said radio network at the vessel's current position.

Hild discloses the control system uses from a database (fig. 1, pg. 1-5; control unit 12 identifies characteristics CH also called frequency spectrum finger print of geographically bound transmission systems within the scanned frequencies; database 4

comprises a database containing a characteristics of geographically bound transmission systems of different geographical areas).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of this invention was made, to modify **Guirauton's** teaching of a method of managing a mobile radio network, and a mobile radio network infrastructure, with **Hild's** teaching of a control unit and a data base, in order to enhance an identification of characteristics of a geographically bound transmission system, pg. 4, par. [0042].

Guirauton, in view of **Hild**, does not disclose combined with data from a positioning system in order to determine which radio frequencies are available to said radio network at the vessel's current position.

Davenport discloses combined with data from a positioning system in order to determine which radio frequencies are available to said radio network at the vessel's current position (fig. 2, steps 40, 42, 44, 36, 46,48, 50,52 shows that which channels are available to the wireless data network by combining the geographical position of radio; therefore, it teaches combined with data from a positioning system in order to determine which radio frequencies are available to said radio network at the current position; pg. 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of this invention was made, to modify **Guirauton's** teaching of a method of managing a mobile radio network, and a mobile radio network infrastructure, with **Hild's** teaching of a control unit and a data base, and further with **Davenport's** teaching of an

accessible network at geographical position of radio, in order to enhance a network configuration system, pg. 1, par. [0005].

Allowable Subject Matter

8. **Claim 2** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach the control system upon detection of a change in radio environment by the radio sensor, makes decisions regarding:

whether any frequency not in use by the radio network has become freely available;

whether any frequency not in use by the radio network has become available to the radio network for transmissions that does not propagate outside the vessel;

whether any frequency in use by the radio network has become unavailable to the radio network for transmissions that does not propagate outside the vessel; and

whether any frequency currently in use by the radio network has become totally unavailable to the radio network;

with all limitations of **claim 1 and 2**.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wright (US6167238A), "Wireless-Based Aircraft Data Communication System With Automatic Frequency Control".

Jeong et al. (US7602757B2), "System And Method For Channel Scanning In Wireless Networks".

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAN HTUN whose telephone number is 571 270 3190. The examiner can normally be reached on MON-THU 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kent Chang can be reached on 571 272 7667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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